# MINOR SOURCE OPERATING PERMIT OFFICE OF AIR MANAGEMENT

Hanson Aggregates Midwest, Inc. 3301 South County Road 150 West Greencastle, Indiana 46135

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 133-11544-00037	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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# D.1 Emissions unit OPERATION CONDITIONS - one (1) hopper, two (2) crushers, two (2) screens, and thirteen (13) conveyors

#### **Emission Limitations and Standards**

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#### **SECTION A**

#### **SOURCE SUMMARY**

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

# A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary limestone processing plant.

Authorized Individual: James R. Smith

Source Address: 3301 South County Road 150 West, Greencastle, IN 46135

Mailing Address: P.O. Box 436329, Louisville, KY 40253

Phone Number: (502) 244-7550

SIC Code: 1422 County Location: Putnam

County Status: Attainment for all criteria pollutants

Source Status: Part 70 Permit Program

Minor Source, under PSD or Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

# A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) Three (3) conveyors, identified as C-11, C-12 and C-13, utilizing spray bars to control emissions:
- (b) one (1) receiving hopper (ID# RH1) with a maximum rated capacity of 600 tons per hour;
- (c) one (1) Pioneer 42 x 48 jaw crusher (ID# CR1) with a maximum rated capacity of 600 tons per hour;
- (d) one (1) Stedman 6460 impact crusher (ID# CR2) with a maximum rated capacity of 383 tons per hour;
- (e) one (1) Deister 7 x 20 triple deck screen (ID# SCR1) with a maximum rated capacity of 600 tons per hour;
- (f) one (1) Deister 7 x 20 triple deck screen (ID# SCR2) with a maximum rated capacity of 453 tons per hour; and
- (g) ten (10) conveyors.

#### SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

# B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

#### B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

# B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

# B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

# B.5 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

#### B.6 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section.
  - (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
  - (2) If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).
- (e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

# B.7 NSPS Reporting Requirement

Pursuant to the New Source Performance Standards (NSPS), Part 60.670, Subpart OOO, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- (a) Commencement of construction date (no later than 30 days after such date);
- (b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- (c) Actual start-up date (within 15 days after such date); and
- (d) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, IN 46206-6015

The application and enforcement of these standards have been delegated to the IDEM OAM. The requirements of 40 CFR Part 60 are also federally enforceable.

#### **SECTION C**

#### **SOURCE OPERATION CONDITIONS**

#### **Entire Source**

# C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM and PM10 emissions are not counted toward determination of PSD applicability.
- (b) Any change or modification which may increase potential to emit of fugitive PM and PM10 emissions to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAM prior to making the change.

# C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

# C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

# C.4 Inspection and Entry [326 IAC 2-7-6(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

#### C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAM, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

# C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

# C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

#### C.9 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations), fugitive particulate matter emissions shall be controlled according to the attached Fugitive Dust Control Plan (Attachment A) such that the following visible emission conditions are met:

- (a) Visible emissions from storage piles shall not exceed twenty percent (20%) in twenty four (24) consecutive readings in a six (6) minute period. This limitation may not apply during periods when application of control measures are ineffective or unreasonable due to sustained very high wind speeds. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9, except that the opacity shall be observed at approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume.
- (b) Visible emissions from unpaved roadways shall not exceed an average instantaneous opacity of twenty percent (20%). The average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:
  - (1) The first will be taken at the time of emission generation.
  - (2) The second will be taken five (5) seconds later.
  - (3) The third will be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the unpaved roadway.

- (c) Visible emissions from paved roadways shall not exceed an average instantaneous opacity of twenty percent (20%). The average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:
  - (1) The first will be taken at the time of emission generation.
  - (2) The second will be taken five (5) seconds later.
  - (3) The third will be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the paved roadway.

(d) Visible emissions from the material loading and unloading operation shall not exceed an average instantaneous opacity of twenty percent (20%). The average instantaneous opacity shall be the average of three (3) opacity readings taken (5) seconds, ten (10) seconds, and fifteen (15) seconds after the end of one (1) material loading or unloading operation. The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume.

Compliance with these opacity limitations shall also meet the requirements of 326 IAC 5-1 under condition C.7.

# **Testing Requirements**

# C.10 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

# **Compliance Monitoring Requirements**

# C.11 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

# C.12 Maintenance of Monitoring Equipment [IC 13-14-1-13]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (b) In the case of continuous opacity monitoring, whenever the continuous opacity monitor is malfunctioning or will be down for repairs or adjustments for a period of four (4) hours or more, visible emission readings should be performed in accordance with 40 CFR 60, Appendix A, Method 9, beginning after the start of the malfunction or down time for a minimum of one (1) hour.
- (c) If the reading period begins less than one hour before sunset, readings shall be performed until sunset. If the first required reading period would occur between sunset and sunrise, the first reading shall be performed as soon as there is sufficient daylight.
- (d) Method 9 opacity readings shall repeated for a minimum of one (1) hour at least once every four (4) hours during daylight operations, until such time that the continuous opacity monitor is back in operation.
- (e) The opacity readings during this period shall be reported in the quarterly Compliance Monitoring Reports, unless there are ANY observed six minute averaged exceedances, in which case, these shall be reported to the air compliance inspector within four (4) working hours.
- (f) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

# C.13 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

# **Record Keeping and Reporting Requirements**

#### C.14 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

# C.15 Annual Emission Statement [326 IAC 2-6]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
  - (1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
  - (2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management Technical Support and Modeling Section, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

# C.16 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

# C.17 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;

- (4) The analytic techniques or methods used;
- (5) The results of such analyses; and
- (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C Compliance Monitoring Plan Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

# C.18 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
  - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) A malfunction as described in 326 IAC 1-6-2; or
  - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
  - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

#### C.19 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Management stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Data Section, Office of Air Management Indiana Department of Environmental Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

#### **SECTION D.1**

#### **EMISSIONS UNIT OPERATION CONDITIONS**

# **Emissions Unit Description**

- (a) Three (3) conveyors, identified as C-11, C-12 and C-13, utilizing spray bars to control emissions:
- (b) one (1) receiving hopper (ID# RH1) with a maximum rated capacity of 600 tons per hour;
- (c) one (1) Pioneer 42 x 48 jaw crusher (ID# CR1) with a maximum rated capacity of 600 tons per hour:
- (d) one (1) Stedman 6460 impact crusher (ID# CR2) with a maximum rated capacity of 383 tons per hour;
- (e) one (1) Deister 7 x 20 triple deck screen (ID# SCR1) with a maximum rated capacity of 600 tons per hour;
- (f) one (1) Deister 7 x 20 triple deck screen (ID# SCR2) with a maximum rated capacity of 453 tons per hour; and
- (g) ten (10) conveyors.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### **Emission Limitations and Standards**

# D.1.1 Particulate Matter (PM) [40 CFR Part 60, Subpart OOO)

Pursuant to the New Source Performance Standards, 326 IAC 12 and 40 CFR 60.670 through 60.676, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants):

- (a) the crushing operations shall be limited to 15 percent opacity or less, and
- (b) the screening and conveying operations shall be limited to 10 percent or less

(enclosed is a copy of this federal rule). Compliance with these opacity limits shall also satisfy the requirements of 326 IAC 5-1.

# **Compliance Determination Requirements**

### D.1.2 Testing Requirements [326 IAC 2-1-4(f)]

Pursuant to 40 CFR 60.675(c) and 40 CFR 60.11, opacity tests to determine compliance with operation condition D.1.1 shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up These tests shall be performed according to 326 IAC 3-6 (Source Sampling Procedures) utilizing U. S. EPA Method 9 (40 CFR Part 60, Appendix A) or other methods as approved by the Commissioner.

# **Compliance Monitoring Requirements**

#### D.1.3 Continuous Wet Suppression

That nonfugitive emissions from the crushing, screening, and conveying operations shall be controlled by utilizing a continuous wet suppression system in order to meet the requirements of condition D.1.1.

Page 16 of 18 MSOP 133-11544-00037

Hanson Aggregates Midwest, Inc. Greencastle, Indiana Permit Reviewer: NH/EVP

**Company Name:** 

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

# MINOR SOURCE OPERATING PERMIT ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Hanson Aggregates Midwest, Inc.

Address: 3301 South County Road 150 West, Greencastle, IN 46135				
City:	Greencastle			
Phone #:	(502) 244-7550			
MSOP #:	133-11544-00037			
hereby certify that	Hanson Aggregates Midwest, Inc. is 9 still in operation.			
	<b>9</b> no longer in operation.			
hereby certify that	Hanson Aggregates Midwest, Inc. is			
	<b>9</b> in compliance with the requirements of MSOP 133-11544-00037.			
	<b>9</b> not in compliance with the requirements of MSOP 133-11544-00037.			
Authorized Indivi	dual (typed):			
Title:				
Signature:				
Date:				
	ditions or requirements for which the source is not in compliance, provide a narrative he source did or will achieve compliance and the date compliance was, or will be			
Noncompliance:				

\*SEE PAGE 2

# **MALFUNCTION REPORT**

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT FAX NUMBER - 317 233-5967

This form should only be use and to qualify	ed to report malfunct y for the exemption u				
THIS FACILITY MEETS THE APPLICABILITY RE PARTICULATE MATTER ?, 25 TONS/YEAR 25 TONS/YEAR VOC ?, 25 TONS/YEAR H' ?, 25 TONS/YEAR REDUCED SULFUR COCARBON MONOXIDE ?, 10 TONS/YEAR A COMBINATION HAZARDOUS AIR POLLUTANT ELEMENTAL LEAD ?, OR IS A SOURCE L MALFUNCTIONING CONTROL EQUIPMENT OR APPLICABLE LIMITATION	R SULFUR DIOXIDE YDROGEN SULFIDE OMPOUNDS ?, NY SINGLE HAZARD ?, 1 TON/YEAR ISTED UNDER 326 IA	?, 25 TONS/ ?, 25 TONS/ 25 TONS/YEAR FL OUS AIR POLLUT. LEAD OR LEAD C C 2-5.1-3(2) ?	YEAR NITROGEN ( /EAR TOTAL REDL UORIDES ?, ANT ?, 25 TO OMPOUNDS MEAS EMISSIONS FRO	OXIDES?_ ICED SUL 100TONS NS/YEAR URED AS OM	FUR S/YEAR
THIS MALFUNCTION RESULTED IN A VIOLATION PERMIT LIMIT OF	)N OF: 326 IAC	OR, PERMIT C	ONDITION #	_ AND/OF	8
THIS INCIDENT MEETS THE DEFINITION OF 'M	IALFUNCTION' AS LI	STED ON REVERS	E SIDE ? Y	N	
THIS MALFUNCTION IS OR WILL BE LONGER 1	THAN THE ONE (1) H	OUR REPORTING	REQUIREMENT?	Υ	N
COMPANY:		PHONE N	IO. ( )		
LOCATION: (CITY AND COUNTY)AFS PLANT ID:			. , ,		
PERMIT NO AFS PLANT ID: CONTROL/PROCESS DEVICE WHICH MALFUNC	TIONED AND	AFS POINT ID:	IN	SP:	
REASON:					
DATE/TIME MALFUNCTION STARTED:/_	/ 20				AM / PN
ESTIMATED HOURS OF OPERATION WITH MALE	FUNCTION CONDITION	DN:			
DATE/TIME CONTROL EQUIPMENT BACK-IN SI	ERVICE/_	_/ 20	AM/PM		
TYPE OF POLLUTANTS EMITTED: TSP, PM-10	, SO2, VOC, OTH	ER:			
ESTIMATED AMOUNT OF POLLUTANT EMITTED	DURING MALFUNCT	TON:			
MEASURES TAKEN TO MINIMIZE EMISSIONS:					
REASONS WHY FACILITY CANNOT BE SHUTDO	WN DURING REPAIR				
CONTINUED OPERATION REQUIRED TO PROVI	DE ESSENTIAL* SER	VICES:			
CONTINUED OPERATION NECESSARY TO PREV CONTINUED OPERATION NECESSARY TO PREV INTERIM CONTROL MEASURES: (IF APPLICABLE	VENT INJURY TO PEI VENT SEVERE DAMA	RSONS: .GE TO EQUIPMEN	IT:		
MALFUNCTION REPORTED BY:(SIGNATURE IF F	-AXED)	TITLE:			
MALFUNCTION RECORDED BY:	DATE:		IME:		

PAGE 1 OF 2

Please note - This form should only be used to report malfunctions

# applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

# 326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

# 326 IAC 1-2-39 "Malfunction" definition

If this item is checked on the front, please explain rationale:

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

\*Essential services are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Hanson Aggregates Midwest, Inc. P.O. Box 436329 Louisville, KY 40253

#### **Affidavit of Construction**

I,	, be	ing duly s	worn upon my oath, depose	and say:
(Name	of the Authorized Representative)			
1.	I live in		County, Indiana and being o	f sound mind and over
	twenty-one (21) years of age, I am co	npetent to	give this affidavit.	
2.	I hold the position of(Title)		for(Con	nnany Name)
0				
3.	By virtue of my position with		,ı na (Company Name)	ive personal
	knowledge of the representations con-	ained in th	nis affidavit and am authorize	ed to make
	these representations on behalf of			
	· —		(Company Name)	
4.	I hereby certify that Hanson Aggregate	es Midwes	t, Inc., 3301 South County R	Road 150 West, Greencastle
	Indiana, 46135, has constructed the the	ree (3) co	nveyors in conformity with th	ne requirements and intent o
	the construction permit application rec	eived by th	ne Office of Air Management	t on November 15, 1999 and
	as permitted pursuant to Minor Source	e Operati	ng Permit No. MSOP-133-	11544, Plant ID No. 133-
	<b>00037</b> issued on			
Further Affiant sa	aid not.			
I affirm under per and belief.	nalties of perjury that the representations	contained	d in this affidavit are true, to	the best of my information
		Signature		
STATE OF INDIA	ANA)	Date		
	)SS			
COUNTY OF	)			
Subscr	ibed and sworn to me, a notary public in	and for _		County and State of
Indiana on this _	day of		, 19	
My Commission	expires:			
		;	Signature	
			Name (typed or printed)	

### **ATTACHMENT A**

#### **FUGITIVE DUST CONTROL PLAN**

# **Source Background and Description**

Source Name: Hanson Aggregates Midwest, Inc.

Source Location: 3301 South County Road 150 West, Greencastle, Indiana 46135

(property of Lone Star Industries, Inc.)

County: Putnam

Operation Permit No.: MSOP 133-11544-00037

SIC Code: 1422

#### **Section 1 - Introduction**

The following control plan, when implemented, is designed to reduce uncontrolled fugitive dust from open storage piles, unpaved road ways, paved roadways and material loading and unloading operations such that the visible emissions limitations specified in the permit are met.

The plan shall be implemented on a year-round basis until such time as another plan is approved or ordered by the Indiana Department of Environmental Management.

The following persons shall be responsible for implementing the plan:

(a) James R. Smith, Environmental Manager

Office Tel. No.: 502-244-7550 Mobile No.: 502-649-9264

(b) Marshall Zoll, Area Manager Office Tel. No.: 317-788-4086

Mobile No.: 765-721-7620

(c) Jack Thompson, Plant Superintendent

Office Tel. No.: 765-435-2779 Mobile No.: 502-648-4528

(d) Russ Adams, Project Manager (During Construction of Site)

Office Tel. No.: 502-244-7550 Mobile No.: 502-648-4528

# **Section 2 - Wind Erosion from Open Storage Piles**

Open storage piles consist of limestone in various stages of processing. To maintain product quality and chemical stability, watering the stockpiles shall be the primary means of dust control. Water must be limited so as to keep the moisture content of the product within standards.

Hanson Aggregates Midwest, Inc. shall spray open storage piles with water, on an "as-needed" basis to eliminate wind erosion and not exceed the opacity limitations in the permit. Water added to the product during processing provides added control. Visible emissions shall be determined in accordance with the procedures specified in the permit.

# Section 3 - Unpaved Areas within the Limestone Processing Area

Hanson Aggregates Midwest, Inc. shall treat unpaved areas traveled around material storage piles and limestone processing equipment with water on an "as-needed" basis. Fugitive dust emissions shall be reduced by at least 50 percent instantaneous control on PM and PM-10 mass emission basis.

Treating of unpaved areas may be delayed by one day when:

- (a) 0.1 or more inches of rain has accumulated during the 24-hour period prior to scheduled treatment.
- (b) Unpaved areas are saturated with water.
- (c) Unpaved areas are frozen or covered by ice, snow, or standing water.
- (d) The area is closed or abandoned.
- (e) It is raining at the time of the scheduled treatment.

Hanson Aggregates Midwest, Inc. shall perform the above dust control measures such that the visible emission limitations in the permit are met. Visible emissions shall be determined in accordance with the procedures specified in the permit.

# Section 4 - Paved Roadways

Since Hanson Aggregates Midwest, Inc. is leasing an area (see Attachment B - Site Map) within Lone Star Industries' property and as part of an agreement between the two sources:

- A. Hanson Aggregates Midwest, Inc. shall control fugitive emissions generated from sections of all paved roadways that are within the leased area, by the use of a vehicular vacuum sweeper or water truck.
- B. Lone Star Industries shall control fugitive emissions generated from sections of all paved roadways outside of Hanson Aggregates Midwest, Inc's leased area, including the section of the new paved roadway leading to Jackson Street, by the use of a vehicular vacuum sweeper or water truck.

Vacuum sweeping or water application shall be performed at least once every operating day. Vehicles shall also not be allowed to travel on the shoulder of paved roadways.

Cleaning of paved road segments and parking lots may be delayed by one day when:

- (a) 0.1 or more inches of rain has accumulated during the 24-hour period prior to the scheduled cleaning.
- (b) The road segment is closed or abandoned. Abandoned roads will be barricaded to prevent vehicle access.
- (c) It is raining at the time of the scheduled cleaning.

Hanson Aggregates Midwest, Inc. and Lone Star Industries shall perform the above dust control measures such that the visible emission limitations in the permit are met. Visible emissions shall be determined in accordance with the procedures specified in the permit.

# Section 5 - Material Handling and Processing

Emissions from material processing operations shall be controlled through the application of water. Application rates and frequencies shall be sufficient to provide at least 90 percent control efficiency by limiting conveyor to pile drop height not to more than 48 inches, front end loader batch drop height into trucks not to more than 48 inches, watering screening and crushing emission points.

### **Section 6 - Vehicle Speed Control**

Speed limits on paved roads shall be posted to be 20 mph. Speed limits on unpaved areas shall be 10 mph.

Compliance with these speed limits shall be monitored by plant superintendent or manager. Violations shall be documented and appropriate corrective actions shall be taken to eliminate repeat violations.

# Section 7 - Material Spill Control

Incidents of material spillage on plant property shall be investigated by the person responsible for implementing the plan. That person shall arrange for prompt cleanup and shall contact the party responsible for the spill to insure that corrective action can be taken.

#### Section 8 - Monitoring and Recording Keeping

Records shall be kept withing a journal which will be updated on a daily basis by the plant manager. The journals shall include vacuum sweeping and spill control activities. Also, the journal shall contain the amount of water sprayed on the open storage piles, the amount of water sprayed at the limestone processing spray bars, and the amount of water applied on unpaved areas. The journals shall be kept at the designated plant location for a minimum of three years and shall be available for inspection or copying upon reasonable prior notice.

# **Section 9 - Compliance Schedule**

This plan shall be fully implemented when construction is completed. Until that time, the plan shall be implemented within portions of the site where construction is considered complete. Where construction is incomplete, appropriate control measures shall be implemented, but cannot be comprehensively addressed. These activities shall be included with the engineering journal.

# Indiana Department of Environmental Management Office of Air Management

# Addendum to the

Technical Support Document for Minor Source Operating Permit (MSOP)

Source Name: Hanson Aggregates Midwest, Inc.

Source Location: 3301 South County Road 150 West, Greencastle, IN 46135

SIC Code: 1422 County: Putnam

Operation Permit No.: MSOP 133-11544-00037 Permit Reviewer: Nishat Hydari/EVP

On March 22, 2000, the Office of Air Management (OAM) had a notice published in the Banner Graphic, Greencastle, Indiana, stating that Hanson Aggregates Midwest, Inc. had applied for a Minor Source Operating Permit (MSOP) to operate a stationary limestone processing plant. The notice also stated that OAM proposed to issue a MSOP for this operation and provided information on how the public could review the proposed MSOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this MSOP should be issued as proposed.

No comments were received from Hanson Aggregates Midwest, Inc.

Upon further review, the OAM has decided to make the following revisions to the permit:

1. Due to an oversight, the requirements of C.5 from Construction Permit 133-9920-00037, issued on February 16, 1999 are being included into the present permit under Section C.9 (immediately following C.8 Fugitive Dust Emissions [326 IAC 6-4]). The remaining conditions in Section C will be re-numbered accordingly. Also, a copy of the fugitive dust control plan is attached.

#### C.9 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations), fugitive particulate matter emissions shall be controlled according to the attached Fugitive Dust Control Plan (Attachment A) such that the following visible emission conditions are met:

(a) Visible emissions from storage piles shall not exceed twenty percent (20%) in twenty four (24) consecutive readings in a six (6) minute period. This limitation may not apply during periods when application of control measures are ineffective or unreasonable due to sustained very high wind speeds. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9, except that the opacity shall be observed at approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume.

- (b) Visible emissions from unpaved roadways shall not exceed an average instantaneous opacity of twenty percent (20%). The average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:
  - (1) The first will be taken at the time of emission generation.
  - (2) The second will be taken five (5) seconds later.
  - (3) The third will be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the unpaved roadway.

- (c) Visible emissions from paved roadways shall not exceed an average instantaneous opacity of twenty percent (20%). The average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:
  - (1) The first will be taken at the time of emission generation.
  - (2) The second will be taken five (5) seconds later.
  - (3) The third will be taken five (5) seconds later or ten (10) seconds after the

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the paved roadway.

(d) Visible emissions from the material loading and unloading operation shall not exceed an average instantaneous opacity of twenty percent (20%). The average instantaneous opacity shall be the average of three (3) opacity readings taken (5) seconds, ten (10) seconds, and fifteen (15) seconds after the end of one (1) material loading or unloading operation. The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume.

Compliance with these opacity limitations shall also meet the requirements of 326 IAC 5-1 under condition C.7.

# Indiana Department of Environmental Management Office of Air Management

# Technical Support Document (TSD) for a New Source Construction and Minor Source Operating Permit

# **Source Background and Description**

Source Name: Hanson Aggregates Midwest, Inc.
Source Location: 3301 South County Road 150 West

Greencastle, IN 46135

County: Putnam SIC Code: 1422

Operation Permit No.: MSOP 133-11544-00037
Permit Reviewer: Nishat Hydari / EVP

The Office of Air Management (OAM) has reviewed a modification application from Hanson Aggregates Midwest, Inc. relating to the construction and operation of three (3) conveyors which are being added to their existing limestone processing plant.

# **History**

There will be a total of thirteen (13) conveyors at the plant once the construction of the three (3) conveyors listed in this minor permit revision is commenced. When conveyor C-11 is running the rest of the plant will be shut down. Similarly, if the entire plant is running, conveyor C-11 will be shut down.

# **New Emission Units and Pollution Control Equipment**

The application includes information relating to the prior approval for the construction and operation of the following equipment:

(a) Three (3) conveyors, identified as C-11, C-12 and C-13, utilizing spray bars to control emissions.

# **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) one (1) receiving hopper (ID# RH1) with a maximum rated capacity of 600 tons per hour;
- (b) one (1) Pioneer 42 x 48 jaw crusher (ID# CR1) with a maximum rated capacity of 600 tons per hour;
- (c) one (1) Stedman 6460 impact crusher (ID# CR2) with a maximum rated capacity of 383 tons per hour;

- one (1) Deister 7 x 20 triple deck screen (ID# SCR1) with a maximum rated capacity of 600 tons per hour;
- (e) one (1) Deister 7 x 20 triple deck screen (ID# SCR2) with a maximum rated capacity of 453 tons per hour; and
- (f) ten (10) conveyors.

# **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

# **Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Construction Permit 133-9920-00037, issued on February 16, 1999;
- (b) Amendment 133-11110-00037, issued on July 28, 1999.

All conditions from previous approvals were incorporated into this MSOP.

#### **Source Definition**

IDEM, OAM, recognizes that this plant (SIC Code 1422) will be located at the property of Lone Star Industries, Inc. (SIC Code 3241). The purpose of this plant is to remove a layer of limestone above which Lone Star needs to produce its own product - cement. All of the material mined by this plant will be processed and sold to other consumers, since the material is not usable for Lone Star's purposes. Therefore for the purpose of this permit review, Hanson Aggregates Midwest, Inc. (formerly known as Kentucky Stone Company) is considered as a separate source from Lone Star Industries, Inc.

#### **Enforcement Issue**

There are no enforcement actions pending.

# Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on November 15, 1999.

### **Emission Calculations**

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 2).

# **Potential To Emit of Entire Source**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant,

including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)*
PM	2767.82**
PM-10	1267.73***
SO <sub>2</sub>	0.00
VOC	0.00
CO	0.00
NO <sub>x</sub>	0.00

<sup>\*</sup>Of entire source including the addition of three (3) conveyors

# (a) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM and PM10 emissions are not counted toward determination of PSD applicability. Fugitive PM and PM10 emissions are also not counted toward Part 70 determination due to the same reasons mentioned.

#### **Actual Emissions**

No previous emission data has been received from the source.

# **County Attainment Status**

The source is located in Putnam County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
$NO_2$	attainment
Ozone	attainment
СО	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Putnam County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Putnam County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

# (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward

<sup>\*\*</sup>Nonfugitive emissions = 195.82 tons/yr and fugitive emissions = 2572.00 tons/yr

<sup>\*\*\*</sup>Nonfugitive emissions = 93.23 tons/yr and fugitive emissions = 1174.50 tons/yr

determination of PSD and Emission Offset applicability.

#### **Source Status**

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	19.58
PM10	9.32
SO <sub>2</sub>	0.00
VOC	0.00
CO	0.00
NO <sub>x</sub>	0.00

(a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

#### Part 70 Permit Determination

# 326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit MSOP 133-11544-00037, is still not subject to the Part 70 Permit requirements (since this is not one of the 28 listed sources and no NSPS was in effect on August 7, 1980, only non fugitive emissions are counted towards Part 70 applicability) because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAM inspector assigned to the source.

### **Federal Rule Applicability**

- (a) This stationary limestone secondary crushing plant is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.670, Subpart OOO). This rule requires the particulate emissions from:
  - (a) the crushing operations to be limited to 15 percent opacity or less, and
  - (a) the screening and conveying operations to be limited to ten percent (10%) opacity or less.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

#### State Rule Applicability - Entire Source

# 326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM10 (fugitive and nonfugitive). Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the

minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

# 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

# 326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to CP 133-9920-00037, issued on February 16, 1999, the source shall not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

# 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

Pursuant to CP 133-9920-00037, issued on February 16, 1999, a fugitive dust plan was submitted on September 11, 1998, and was reviewed and approved. The source shall comply with all dust abatement measures contained therein, which includes, but not limited to, applying water on storage piles, unpaved roadways, material loading and unloading operations on an "asneeded" basis such that the following visible emission conditions are met:

- (1) Visible emissions from storage piles shall not exceed twenty percent (20%) in twenty four (24) consecutive readings in a six (6) minute period. This limitation may not apply during periods when application of control measures are ineffective or unreasonable due to sustained very high wind speeds. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9, except that the opacity shall be observed at approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume.
- (2) Visible emissions from unpaved roadways shall not exceed an average instantaneous opacity of twenty percent (20%). Average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:
  - (A) The first will be taken at the time of emission generation.
  - (B) The second will be taken five (5) seconds later.
  - (C) The third will be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately four (4) feet above the surface of the unpaved roadway.

Visible emissions from the material loading and unloading operation shall not exceed an average instantaneous opacity of twenty percent (20%). The average instantaneous opacity shall be the average of three (3) opacity readings taken five (5) seconds, ten (10) seconds, and fifteen (15) seconds after the end of one (1) material loading or unloading operation. The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet, but no more than one-fourth (1/4) mile, from the plume and at approximately right angles to the plume.

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Hanson Aggregates Midwest, Inc. Greencastle, Indiana Permit Reviewer: NiH/EVP

Compliance with these opacity limitations shall also meet the requirements of 326 IAC 5-1.

#### **Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

None of the listed air toxics will be emitted from this source.

# Conclusion

The construction and operation of this stationary limestone processing plant shall be subject to the conditions of the attached proposed **New Source Construction and Minor Source Operating Permit 133-11544-00037.** 

# Appendix A: Emission Calculations Limestone Processing Calculations

Company Name: Hanson Aggregates Midwest, Inc.

Address City IN Zip: 3301South County Road 150 West, Greencastle, IN 46135

CP#: 133-11544 Plt ID: 133-00037

Permit Reviewer: Nishat Hydari

**Emissions before controls** 

Conveying transfer pts. (3) 826 tons/hr x 8760 hrs/yr x 0.0014 lb/ton / 2000 lb/ton = 5.07 tons/yr

**Emissions after control** 

Conveying transfer pts. (3) 5.07 tons/yr x 10.00% emitted after controls = **0.51** tons/yr

<sup>\*</sup> Emission factor (0.0014 lb/ton) is from AP-42 Chapter 11.19.2

Appendix A: Emission Calculations **Limestone Processing Calculations** 

Company Name: Hanson Aggregates Midwest, Inc.
Address City IN Zip: 3301South County Road 150 West, Greencastle, IN 46135
CP#: 133-11544

Plt ID: 133-00037 Permit Reviewer: Nishat Hydari

#### PM emissions before controls

Storage Transporting				see page 2 ** see page 3 **					31.04 2535.18	tons/yr tons/yr	AP-42 Ch.11.2.3 AP-42 Ch.11.2.1
Loading & Unloading	600	tons/hr x	8760	hrs/yr x	0.0022	lb/ton /	2000	lb/ton =	5.78	tons/yr	AP-42 Ch.11.2.3
Primary Crusher (1)	600	tons/hr x	8760	hrs/yr x	0.0007	lb/ton /	2000	lb/ton =	1.84	tons/yr	AP-42 Ch.11.19.2
Secondary Crusher (1)	383	tons/hr x	8760	hrs/yr x	0.0007	lb/ton /	2000	lb/ton =	1.17	tons/yr	AP-42 Ch.11.19.2
Screening (2)	1053	tons/hr x	8760	hrs/yr x	0.0315	lb/ton /	2000	lb/ton =	145.28	tons/yr	AP-42 Ch.11.19.2
Conveying transfer pts. (13)	3691	tons/hr x	8760	hrs/yr x	0.00294	lb/ton /	2000	lb/ton =	47.53	tons/yr	AP-42 Ch.11.19.2
Total emissions before controls:									2767.82	tons/yr	

#### PM emissions after control

Storage	31.04	tons/hr x	50% emitted after controls =	15.52 tons/yr
Transporting	2535.18	tons/hr x	50% emitted after controls =	1267.59 tons/yr
Loading & Unloading	5.78	tons/hr x	50% emitted after controls =	2.89 tons/yr
Primary Crusher (1)	1.84	tons/hr x	10% emitted after controls =	0.18 tons/yr
Secondary Crusher (1)	1.17	tons/hr x	10% emitted after controls =	0.12 tons/yr
Screening (2)	145.28	tons/hr x	10% emitted after controls =	14.53 tons/yr
Conveying transfer pts. (13)	47.53	tons/hr x	10% emitted after controls =	4.75 tons/yr
Total emissions after controls:				1305.58 tons/vr

Since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, fugitive emissions are not counted toward determination of PSD applicability.

Crushing, screeing, and conveying operations are considered nonfugitive. All other emissions are considered fugitive. Pursuant to PSD rules, 326 IAC 2-2, emissions are as follows:

#### \*\* fugitive vs. nonfugitive \*\*

Storage Transporting Loading & Unloading Total fugitive emissions	31.04 2535.18 5.78	tons/hr x tons/hr x tons/hr x	50% emitted after controls = 50% emitted after controls = 50% emitted after controls =	15.52 tons/yr 1267.59 tons/yr 2.89 tons/yr 1286.00 tons/yr
Primary Crusher (1) Secondary Crusher (1) Screening (2)	1.84 1.17 145.28	tons/hr x tons/hr x tons/hr x	10% emitted after controls = 10% emitted after controls = 10% emitted after controls =	0.18 tons/yr 0.12 tons/yr 14.53 tons/yr
Conveying transfer pts. (13)  Total nonfugitive emissions	47.53	tons/hr x	10% emitted after controls =	4.75 tons/yr 19.58 tons/yr

\*\* storage \*\*

Storage emissions, which result from wind erosion, are determined by the following calculations:

Ef = 1.7\*(s/1.5)\*(365-p)/235\*(f/15)

9.26 lb/acre/day 8 % silt content of material

125 days of rain greater than or equal to 0.01 inches 15 % of wind greater than or equal to 12 mph p = f =

 ${\sf Ep\ (storage) =\ Ef^*sc^*(40\ cuft/ton)/(2000\ lb/ton)/(43560\ sqft/acre)/(25\ ft)^*(365\ day/yr)}$ 

= 31.04 tons/yr where sc = 500 ,000 tons storage capacity

\*\* unpaved roads \*\*

The following calculations determine the amount of emissions created by

unpayed roads, based on 8760 hours of use and AP-42. Ch 11.2.1.

#### A. 6 wheelers

5.0 round trips/hr	0.38	mile/one-way trip x	2 (round trip)	x 8760 hr	/yr = 99864.0
Ef =	k*5.9*(s/12)*(	5/30)*(W/3)^0.7*(w/4)^0.5*((365	-p)/365)		
=	11.47	lb/mile			
where k =	0.8	(particle size multiplier)			
s =	9	% silt content of unpaved roads			
p =	125	days of rain greater than or equ	al to 0.01 inches		
S =	15	miles/hr vehicle speed			
W =	59	tons average vehicle weight			
w =	6	wheels			
11.47	lb/mi x	99864 mi/yr =	572	70 tons/yr	
	2000	lb/ton			

#### B. 14 wheelers

30.0 round trips/hr	: 0.8	mile/one-way trip x	2 (roui	nd trip) x	8760 hr/yr =	420480.0
Ef =	k*5.9*(s/12)*(	S/30)*(W/3)^0.7*(w/4)^0.5*((365-	p)/365)			
=	9.33	lb/mile				
where k =	0.8	(particle size multiplier)				
S =	9	% silt content of unpaved roads				
p =	125	days of rain greater than or equa	al to 0.01 inches			
S =	15	miles/hr vehicle speed				
W =	24	tons average vehicle weight				
w =	14	wheels				
9.33	lb/mi x	420480 mi/yr =		1962.47 tons/yr		
	2000	lb/ton				

#### C. Total Potential PM Emissions

2535.18 tons/yr

The following calculations determine the amount of emissions created by truck loading and unloading of aggregate, based on 8760 hours of use and AP-42, Ch 11.2.3.

Ef = k\*(0.0032)\* (U/5)^1.3/(M/2)^1.4 0.0022 lb/ton 0.74 (particle size multiplier) = where k = U = 10 mile/hr mean wind speed
M = 4 % material moisture content

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Appendix A: Emission Calculations **Limestone Processing Calculations** 

Company Name: Hanson Aggregates Midwest, Inc.
Address City IN Zip: 3301South County Road 150 West, Greencastle, IN 46135
CP#: 133-11544

Plt ID: 133-00037 Permit Reviewer: Nishat Hydari

#### PM10 emissions before controls

Storage Transporting				see page 2 ** see page 3 **					31.04 1140.83	tons/yr tons/yr	AP-42 Ch.11.2.3 AP-42 Ch.11.2.1
Loading & Unloading	600	tons/hr x	8760	hrs/yr x	0.001	lb/ton /	2000	lb/ton =	2.63	tons/yr	AP-42 Ch.11.2.3
Primary Crusher (1)	600	tons/hr x	8760	hrs/yr x	0.00033	lb/ton /	2000	lb/ton =	0.87	tons/yr	AP-42 Ch.11.19.2
Secondary Crusher (1)	383	tons/hr x	8760	hrs/yr x	0.00033	lb/ton /	2000	lb/ton =	0.55	tons/yr	AP-42 Ch.11.19.2
Screening (2)	1053	tons/hr x	8760	hrs/yr x	0.015	lb/ton /	2000	lb/ton =	69.18	tons/yr	AP-42 Ch.11.19.2
Conveying transfer pts. (13)	3691	tons/hr x	8760	hrs/yr x	0.0014	lb/ton /	2000	lb/ton =	22.63	tons/yr	AP-42 Ch.11.19.2
Total emissions before controls:									1267.73	tons/yr	

#### PM10 emissions after control

Storage	31.04	tons/hr x	50% emitted after controls =	15.52 tons/vr
Transporting	1140.83	tons/hr x	50% emitted after controls =	570.41 tons/yr
Loading & Unloading	2.63	tons/hr x	50% emitted after controls =	1.31 tons/yr
Primary Crusher (1)	0.87	tons/hr x	10% emitted after controls =	0.09 tons/yr
Secondary Crusher (1)	0.55	tons/hr x	10% emitted after controls =	0.06 tons/yr
Screening (2)	69.18	tons/hr x	10% emitted after controls =	6.92 tons/yr
Conveying transfer pts. (13)	22.63	tons/hr x	10% emitted after controls =	2.26 tons/yr
Total emissions after controls:				596.57 tons/vr

Since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, fugitive emissions are not counted toward determination of PSD applicability.

Crushing, screeing, and conveying operations are considered nonfugitive. All other emissions are considered fugitive. Pursuant to PSD rules, 326 IAC 2-2, emissions are as follows:

#### \*\* fugitive vs. nonfugitive \*\*

Storage	31.04	tons/hr x	50% emitted after controls =	15.52 tons/yr
Transporting	1140.83	tons/hr x	50% emitted after controls =	570.41 tons/yr
Loading & Unloading	2.63	tons/hr x	50% emitted after controls =	1.31 tons/yr
Total fugitive emissions				587.25 tons/yr
Primary Crusher (1)	0.87	tons/hr x	10% emitted after controls =	0.09 tons/yr
Secondary Crusher (1)	0.55	tons/hr x	10% emitted after controls =	0.06 tons/yr
Screening (2)	69.18	tons/hr x	10% emitted after controls =	6.92 tons/yr
Conveying transfer pts. (13)	22.63	tons/hr x	10% emitted after controls =	2.26 tons/yr
Total nonfugitive emissions				9.32 tons/yr

\*\* storage \*\*

Storage emissions, which result from wind erosion, are determined by the following calculations:

Ef = 1.7\*(s/1.5)\*(365-p)/235\*(f/15)

9.26 lb/acre/day 8 % silt content of material

125 days of rain greater than or equal to 0.01 inches 15 % of wind greater than or equal to 12 mph p = f =

Ep (storage) = Ef\*sc\*(40 cuft/ton)/(2000 lb/ton)/(43560 sqft/acre)/(25 ft)\*(365 day/yr) = 31.04 tons/yr

= 31.04 tons/yr where sc = 500 ,000 tons storage capacity

\*\* unpaved roads \*\*

The following calculations determine the amount of emissions created by

unpayed roads, based on 8760 hours of use and AP-42. Ch 11.2.1.

#### A. 6 wheelers

15.0 round trips/hr	0.38	mile/one-way trip x	2 (round trip) x	8760 hr/yr =	99864.0
Ef =	k*5.9*(s/12)*(	S/30)*(W/3)^0.7*(w/4)^0.5*((36	5-p)/365)		
=	5.16	lb/mile			
where k =	0.36	(particle size multiplier)			
s =	9	% silt content of unpaved road	ds		
p =	125	days of rain greater than or ed	qual to 0.01 inches		
S =	15	miles/hr vehicle speed			
W =	59	tons average vehicle weight			
w =	6	wheels			
5.16	lb/mi x	99864 mi/yr =	257.72 to	ns/yr	
	2000	lb/ton			

#### B. 14 wheelers

30.0 round trips/hr	0.8	mile/one-way trip x	2 (round trip	e) x 8760 hr/	yr = 420480.0
Ef =	k*5.9*(s/12)*(	S/30)*(W/3)^0.7*(w/4)^0.5*((36	5-p)/365)		
=	4.20	lb/mile			
where k =	0.36	(particle size multiplier)			
S =	9	% silt content of unpaved road	ds		
p =	125	days of rain greater than or eq	qual to 0.01 inches		
S =	15	miles/hr vehicle speed			
W =	24	tons average vehicle weight			
w =	14	wheels			
4.20	lb/mi x	420480 mi/yr =	883	3.11 tons/yr	
<u></u>	2000	lb/ton			

#### C. Total Potential PM Emissions

1140.83 tons/yr

The following calculations determine the amount of emissions created by truck loading and unloading of aggregate, based on 8760 hours of use and AP-42, Ch 11.2.3.

Ef = k\*(0.0032)\* (U/5)^1.3/(M/2)^1.4 0.0010 lb/ton 0.35 (particle size multiplier) = where k = U = 10 mile/hr mean wind speed
M = 4 % material moisture content